

Borough of



Chelmsford.

ANNUAL REPORT

ON

Health, Sanitary Conditions

ETC.,

FOR THE YEAR 1920,

BY

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INCLUDING THE

REPORTS of the VETERINARY INSPECTOR
and SANITARY INSPECTOR.

Summary of Vital Statistics, Etc., 1920.

POPULATION OF BOROUGH—

Estimated at 21,666 by the Registrar-General.

BIRTHS—

Total registered 451, including 19 illegitimates. Number of births notified to M.O.H., 436. Percentage of illegitimate births, 4·2. Birth rate per 1,000 population, 20·8.

NOTIFICATIONS—

Total received, 128, including

Diphtheria	...	23	Tuberculosis (other forms)	5	
Scarlet Fever	...	28	Ophthalmia Neonatorum	1	
Encephalitis Lethargica	1		Puerperal Fever	...	2
Erysipelas	...	1	Malaria	...	8
Pulmonary Tuberculosis	33		Pneumonia	...	26

DEATHS—

Total uncorrected, 251: rate, 11·9 per 1,000 living.

Total corrected, 193: rate 8·8 per 1,000 living.

Under 1 year of age, 25: rate, 55·4 per 1,000 births registered.

Total Zymotic Death-rate per 1,000 living, 0·16.

Chief causes of death, persons of all ages :—

Disease.	No. of Deaths.	Rate.
Diphtheria	1	·04 per 1,000 living
Other Zymotic diseases :—		
Measles	2	·08 ,,
Whooping Cough ...	1	·04 ,,
Infant Diarrhœa (under 2 years of age) ...	0	·00 ,,
Pulmonary Tuberculosis ...	7	·32 ,,
Tuberculosis (other forms)...	5	·23 ,,
Cancer	26	1·2 ,,
Organic Heart Disease ...	19	·9 ,,
Influenza	0	·00 ,,
Bronchitis	16	·73 ,,
Pneumonia	14	·64 ,,

Summary of Vital Statistics, Etc., 1919.

POPULATION OF BOROUGH—

Estimates 1920, 21,705 (including military population) ;
20,836 (civil population).

These are the estimates supplied by the Registrar-General.

BIRTHS—

Total registered, 334, including 31 illegitimates. Number of births notified to M.O.H., 324. Percentage of illegitimate births, 9·2. Birth rate per 1,000 population, 15·38.

NOTIFICATIONS—

Total received, 162, including

Diphtheria	... 44	Tuberculosis (other forms)	1
Scarlet Fever	... 14	Ophthalmia Neonatorum	2
Measles and German		Puerperal Fever	... 2
Measles	... 9	Malaria	... ... 21
Enteric Fever	... 2	Dysentery	... ... 4
Erysipelas	... 5	Pneumonia	... ... 21
Pulmonary Tuberculosis	26	Influenzal Pneumonia	... 11

DEATHS—

Total uncorrected, 251 : rate, 11·9 per 1,000 living.

Total corrected, 218 : rate, 10·4 per 1,000 living.

Under 1 year of age, 19 : rate, 56·8 per 1,000 births registered.

Total Zymotic Death Rate per 1,000 living, 0·16.

Chief causes of death, persons of all ages:—

Disease.	No. of Deaths.	Rate.
Diphtheria	2	·09 per 1,000 living
Typhoid, Measles, Whooping Cough and Scarlet Fever	0	·00 „
Infant Diarrhoea (under 2 years of age) ...	1	·04 „
Pulmonary Tuberculosis ...	12	·56 „
Tuberculosis (other forms)...	4	·19 „
Cancer	31	1·48 „
Organic Heart Disease ...	23	1·10 „
Influenza	11	·56 „

Natural and Social Conditions of the District.

POPULATION. The census population of 1911 was 18,008. The figure for the estimated population for 1920 is supplied by the Registrar-General and is 21,666.

Considering the number of people who were in lodgings during the last year, and taking the number of inhabited houses as approximately 4,800, this is probably an under estimate.

During the years of the war the Registrar-General supplied two figures, a higher figure which included the military population and a lower one which represented the civil population.

With the resumption of peace conditions the necessity for two figures no longer exists, and the one figure (21,666) is used as the estimated population for calculating both birth and death rates.

NATURAL CONDITIONS, ETC., OF THE BOROUGH. These were described at some length in the Report of 1919, so that there is no necessity to repeat them after such a short interval.

SOCIAL CONDITIONS, INDUSTRIES, ETC. To what was said under this head in last year's Report, it may be added that unemployment is now rife in the town. A large number of men have been discharged from the factory of Messrs. Hoffmann, and many others are working short time, both at this and other places of employment.

If this shortage of work is continued over a long period of time it is likely to have a prejudicial effect on the health of the classes affected, unless they can find other employment.

Vital Statistics.

(See Summary on page 5).

A summary of the chief Vital Statistics for the year 1920 is given on page 45. The number of notifications of infectious disease is given on the same page. Similar statistics are given for the year 1919 on page 5, in order that the figures for the two years may be compared.

Also for purposes of comparison with the statistics of other parts of the country, and of the country as a whole, the following table is given :—

BIRTH-RATE, DEATH-RATE, and ANALYSIS OF MORTALITY during the Year 1920.

(Provisional figures. Populations estimated to the middle of 1920 have been used for the purposes of this Table.)

	BIRTH-RATE PER 1,000 TOTAL POPULA- TION.	ANNUAL DEATH-RATE PER 1,000 POPULATION.								RATE PER 1,000 BIRTHS.	
		All Causes.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Violence.	Diarrhoea and Enteritis (under 2 Years).	Total Deaths under One Year.
England and Wales ...	25.4	12.4	0.01	0.00	0.10	0.04	0.11	0.15	0.48	8.3	80
96 Great Towns, including London (Census Populations exceeding 50,000)	26.2	12.5	0.01	0.00	0.22	0.04	0.14	0.16	0.43	10.4	85
148 Smaller Towns (Census Populations 20,000—50,000)	24.9	11.3	0.02	0.00	0.19	0.03	0.10	0.14	0.38	7.8	80
London ...	26.5	12.4	0.01	0.00	0.22	0.05	0.17	0.22	0.47	9.5	75
CHELMSFORD ...	20.8	8.8	0.00	0.00	0.08	0.00	0.04	0.04	—	0.00	55.

BIRTH RATE. The birth rate of Chelmsford for 1920 was 20.8, as compared with 15.3 in 1919. It will be seen that this is a low birth rate compared with that of the whole country, which was 18.5 in 1919 and 25.4 in 1920.

The birth rate of Chelmsford has been low for several years.

The *illegitimate birth rate* of Chelmsford was much lower in 1920 than 1919. In 1919 9.2 per cent. of the births were illegitimate, but in 1920 the percentage was much less, being only 4.2 per cent.

DEATH RATE. The number of deaths registered in the Borough was 235. Of this number 62 were deaths of persons who were not inhabitants of Chelmsford, but who died in Institutions within the Borough.

In addition, 20 deaths were accepted as deaths of Chelmsford residents occurring in other districts.

Subtracting 62 "outward transfers" from the figure of 235, and adding 20 "inward transfers," the net number of deaths is 193, which agrees with the figure supplied by the Registrar-General. This gives a corrected death rate of 8.8 per 1,000 for the year 1920. This is a low death rate as compared with that of the whole country, which is 12.4 per 1,000. It is also lower than that of 1919 for Chelmsford, which was 10.4 per 1,000.

Two other death rates which are of special importance are also low.

Thus the *Zymotic Death Rate* was only .16 per 1,000.

The Death Rate from Pulmonary Tuberculosis, which is also one of great importance, was also very low, being .32 per 1,000, much lower than that for the whole country, indicating that Chelmsford is not a town where Pulmonary Tuberculosis is particularly prevalent.

INFANT MORTALITY. The infant death rate for 1919 (56.8 per 1,000 infants born) was an extraordinarily low one, whilst that for 1920 was even lower than that of the previous year, being only 55.4, compared with 80 per 1,000 for England and Wales. It is very satisfactory to find that not only was the death rate low in 1919, but that it diminished still further during the last year. It is also gratifying to record that there is no death rate at all to record from Infant Diarrhoea during the year 1920, whereas this rate for the whole country was 8.3 per 1,000 births.

Various factors are at work which account for these satisfactory figures.

The chief factor in this diminished death rate is undoubtedly the great interest which is being taken everywhere in the subject of infant care.

The general public is now much better educated in this subject than it was in the past.

It is important to bear in mind that a matter even more important than the reduction of the infant death rate, is an increase of infant health in the general population. There is reason to believe that this aim is receiving much more attention than ever before. There are various agencies at work for betterment in this direction.

The increased public interest already referred to, is to a great extent due to better teaching on this subject by Medical Practitioners and Midwives, and also to the efforts of Maternity and Child Welfare Centres and Health Visitors.

Poor Law Relief, Hospitals, Etc.

The amount of money applied to Outdoor Relief in the Borough of Chelmsford for the year 1920 was £1,072 10s. 10d., as follows:—

			£	s.	d.
Quarter ending March 31st, 1920	...	...	248	16	9
„ June 30th, „	...	..	221	18	1
„ Sept. 30th, „	...	..	270	3	0
„ Dec. 31st, „	...	...	331	13	0
Total			£1072 10 10		

This amount for 1919 was £634 8s. 0d.

The Chelmsford and Essex Hospital and Dispensary serves as a General Hospital for the district. There are 43 beds, but an extension is contemplated at an early date.

During the year 1920, 804 in-patients were treated at this Institution, of which 342 were residents of the Borough of Chelmsford. The number of out-patients and casualties was 1,226, and the number of operations 668.

The Tuberculosis Dispensary and the Clinic for Venereal Diseases are both held on the hospital premises. At the present time there is no Maternity Ward in this institution, but there is great need for such a ward, both in the interests of the Borough of Chelmsford and the district around.

Maternity cases have occasionally been admitted to the hospital, also obstetrical cases with surgical complications are admitted from time to time.

The Workhouse Infirmary is an Institution of 119 beds and serves for both Urban and Rural Districts: it has a Maternity Ward of 4 beds.

The following table gives the number of inmates in the Chelmsford Workhouse and Infirmary during the year ending September 30th, 1920:—

	Men.	Women.	Children.	Total.
From Chelmsford Rural District ...	95	90	20	205
From Borough of Chelmsford ...	85	58	13	156
Totals ...	180	148	33	361

Total days in the Institution—57,755.

Sanitary Circumstances of the District.

WATER SUPPLY. The water supply is derived from the following sources:—

Admiral's Park, Spring	
Borehole	
Burgess Well, Spring	
Mildmay Yard, Borehole	
Galleywood	„
Broomfield, Hydrant	
Springfield	„

The last two sources are from outside the Borough, these supplies being obtained from the Rural District Council.

The daily consumption of the Borough averages about 460,000 gallons. At the present time the supply is adequate for the needs of the town, but as the town grows the provision of further supplies will become necessary.

With regard to the purity of the present supply, I am able to report that the usual samples have been analysed by Drs. Thresh and Beale during the year.

The following is a Report from their Laboratory, dated June 14th, 1920:—

Report on six samples collected on June 8th, 1920, including the supplies to all parts of the Borough.

1. The Galleywood Supply. This is an exceedingly pure soft water.
2. The Mildmay Road Well. This is an exceedingly good water from the chemical point of view and of fair quality bacteriologically. There is a suspicion that by some means a trace of sub-soil gets access to the bore tube, and the well requires careful watching.
3. The Broomfield Road Supply is like No. 1, exceedingly pure and soft. A pure deep well water.
4. Admirals Park Water is a mixture of spring and deep well water, more of the former than the latter, and is of very good quality.
5. The Burgess Well Water is excellent, save that it is very hard.
6. The Springfield Water is a pure spring water of quite moderate hardness.

All can be certified to be pure and wholesome.

JOHN C. THRESH & JOHN F. BEALE.

RIVERS AND STREAMS. The streams which flow through this Borough are the Chelmer and its tributary, the Cann. With regard to the Chelmer, there is considerable evidence of pollution from various sources.

From the report of the Medical Officer of Health of Dunmow Rural District Council for the years 1916—1919, I find that the pollution of the River Chelmer at Great Dunmow has ceased since 1915, when the sewage disposal works were opened.

After referring to the fact that Great Dunmow is the only parish in the Rural District with an up-to-date system of sewerage and sewage disposal, the report goes on to state:—“What other sewers there are in the district are chiefly old road drains and piped-in ditches. These exist at Thaxted, Great Bardfield, Stebbing, Felstead, High Easter and Great Easton.” All these villages are in the Chelmer drainage area and doubtless contribute to the pollution of this river.

Dr. Smith states that serious pollution still occurs at Thaxted, and also adds :—"There is some pollution of streams at Hatfield Broad Oak and at Felstead." It is stated that at Felstead the effluents of the Council's and the School's sewers discharge without any preliminary treatment into the brook. From thence they find their way to the River Chelmer.

The state of drainage affairs at Thaxted is well described by Dr. Smith as follows:—"The road drains have become sewers by reason of house drains, including over 100 water closets, having been connected in former years. This is the only means of drainage, and most of it is discharged into a culvert which opens out into a stream near the Gas Works. This stream runs along the side of the main road leading to the railway station and empties into the River Chelmer, half a mile below the town. During the wet season the sewage is much diluted, but in the autumn the stream is like a long cesspool, and is a well-known nuisance."

Such is the contamination of the River Chelmer in the Dunmow Rural District, to which is added further pollution from Little Waltham and Broomfield.

Unfortunately, it cannot be said that Chelmsford is blameless in the matter of river pollution. There is a sewer at the end of Victoria Road, which at times overflows into the river.

This source of pollution will no doubt be removed when a new scheme of drainage is introduced in the Borough.

Altogether it cannot be said that the state of the river is satisfactory, especially in view of the fact that the water for the open-air swimming bath is obtained from the Chelmer. Previous to its admission to the bath the river water is passed through filters of coarse sand and gravel. This method of treatment is sufficient to get rid of mud, but it has been shown by analyses of samples of water taken from the baths that the water is by no means free from bacterial life.

During the war the practice of submitting samples of water from the swimming bath was discontinued. Next summer, before the bath comes into use again, a sample should be analysed. If contamination with bacteria is serious, the water should be chlorinated. The addition of a small quantity of chlorine would not render the water objectionable to bathers and would remove all risks to health.

DRAINAGE AND SEWERAGE. No progress has been made with the scheme for laying new sewers, but these are needed, as the old sewers are inadequate for the present size of the Borough.

The Borough Surveyor informs me that the following new foul-water sewers have been laid during 1920 :—

Extension to 9in. sewer in Coval Lane.

„ „ „ Moulsham Street (south end)

Sewers in Roadways Nos. 3, 3a, 4, 4a, 9, 10 and 10a on the Boarded Barns Estate.

The following surface-water sewers have also been laid :—

9in. surface-water sewer in Admiral's Park and Park Avenue, connecting up with Tower Avenue.

12in. surface-water sewer in the Recreation Ground from Market field to the river.

9in. surface-water sewer in Duke Street, from Market Road to Broomfield Road.

Surface-water sewers in Roadways No. 3, 3a, 4, 4a, 9, 10 and 10a, Boarded Barns Estate.

The sewage of the Borough, together with that of parts of the Rural District, is treated at the sewage farm at Brook End, Springfield, by the the method of broad irrigation.

The farm has an area of about 150 acres.

A reasonably satisfactory effluent is produced, which is discharged into the Chelmer.

CLOSET ACCOMMODATION. Generally speaking this is satisfactory. Pail closets are in use in the Rural parts of the Borough, but there are now no privvy middens in any part of the Borough.

Most of the w.c.s in the Borough are now of the modern pedestal type.

There is still a considerable number of long hopper w.cs., but these are being replaced gradually by more modern basins as opportunity arises.

SCAVENGING. A refuse destructor is needed, but at the present time the refuse of the Borough is carted to tips.

. That of the north and south wards is deposited in a tip in the fields at Long Stomps.

During the year 4,471 loads were disposed of. The refuse from the Springfield Ward is collected by contract, and deposited in a tip by the contractor.

This method of disposal cannot be considered satisfactory. Wherever the tip is situated, it usually gives rise to complaints on the part of those who live near.

The usual complaints are that papers blow about the neighbourhood of the tip, or that the tip harbours rats or other vermin.

SANITARY INSPECTION OF DISTRICT. This is carried out by Mr. W. Brown, Sanitary Inspector. Full particulars of the work will be found in his report at the end of this report. The following is a brief summary of housing work during 1920 under the

Housing and Town Planning Act, 1909.

1. Number of dwelling-houses inspected	...	70	
2. Number of houses found on inspection unfit for human habitation	...	3	
3. Number of representations made to Local Authority	...	None	
4. Number of Closing Orders made by Local Authority	...	None	
5. Number of houses which, after Closing Orders had been made, were fit for human habitation		None.	All defects were remedied without the necessity of a Closing Order.
6. General character of defects found :—			
Broken and defective plaster work, dampness of walls, inadequate ventilation, and general state of dis-repair.			

The above table gives particulars only of inspections under this particular Act. Record cards of such inspections are drawn up by the Sanitary Inspector.

Details of other general housing inspections will be found in his report.

In addition to the usual Sanitary and Housing Inspections, the Elementary Schools of the Borough have been visited regularly by the Sanitary Inspector and Medical Officer of Health.

A monthly Report is made to the Education Committee on the condition of the sanitary conveniences.

Food Supply and Inspection.

Full particulars of food inspection will be found in the Reports of Mr. W. Brown, Sanitary Inspector, and Mr. W. S. Mulvey, F.R.C.V.S.

In addition, Mr. Mulvey's Report deals with the administration of the Dairies, Cowsheds and Milkshops Order of 1899.

Particulars of action taken under the Milk (Mothers and Children) Order will be found in the section of this report dealing with Maternity and Child Welfare.

The taking of samples under the Sale of Foods and Drugs Act is in the hands of the County Council.

The examination of milk for tubercle bacilli is carried out by Mr. Mulvey.

Prevalence of, and Control over, Infectious Diseases.

(See Summary on page 5).

Reference to page 2 shows a very satisfactory state of affairs with reference to the prevalence of Infectious Diseases during 1920. There were 128 notifications in 1920, as compared with 162 in 1919.

Although Scarlet Fever and Diphtheria have been very prevalent in London during 1920, the number of cases of these diseases in Chelmsford has been very small.

Measles and German Measles are no longer notifiable.

METHODS OF CONTROL. The usual methods of combating Scarlet Fever and Diphtheria have been employed, viz., isolation of cases affected with the disease, quarantine of "contacts," disinfection of premises and the provision of disinfectants free of charge. In the case of Diphtheria, swabbing of throats when necessary, and the provision of anti-toxin free of charge have also been undertaken.

All the cases of Diphtheria and Scarlet Fever were removed to hospital, thereby preventing much further infection.

The following deaths occurred from infectious disease during the year :—
Diphtheria 1, Measles 2, Whooping Cough 1.

The death rates from these diseases are much lower than those of England and Wales taken as a whole, as a reference to the table on page 8 will show.

It will be seen that the death rate from Diphtheria for England and Wales is five times that of Chelmsford, and those from Measles and Whooping Cough, three and four times respectively those of Chelmsford.

With regard to the prevalence of the non-notifiable infectious diseases, an outbreak of Measles occurred in July and Chicken-pox in December. These epidemics were not more severe than usual, and affected chiefly the children in the Moulsham district.

Tuberculosis and Venereal Diseases.

The treatment of these diseases is under the control of the County Authority. One afternoon session and one evening session respectively are held at the County Dispensary by the County Tuberculosis Officer. A Clinic for the treatment of cases of Venereal Diseases has been established at the Chelmsford Hospital, London Road. It is held between the hours of 11 a.m. and 12 noon on Fridays. Beds are also available at the Hospital for in-patients suffering from these diseases.

Small-pox.

Fortunately no case of Small-pox occurred in the Borough during the last year. Hospital accommodation is, however, available, and is always kept in readiness at the Galleywood Small-pox Hospital. This is a joint Hospital which serves for the Borough of Chelmsford and also for the Chelmsford Rural District.

Maternity and Child Welfare Scheme.

In the Annual Report for 1919 full particulars were given of the extensive powers which Local Authorities now possess in respect of measures for the care of the health of mothers and infants.

It is intended under this Scheme to safeguard the health of children until they reach the age of 5 years, in addition to giving assistance to mothers during pregnancy and lactation.

After the age of 5 years the infant enters a school, and at this period of its life a certain amount of responsibility for its health devolves on the Education Authority.

During the "pre-school" period, however, various efforts are made for its well being under schemes administered by the Maternity and Child Welfare Committee.

In this Borough during the year 1920 the following have been the chief measures put into operation by the Local Authority :—

- (a) Ante-natal visits to expectant mothers by the Health Visitor.
- (b) Visitation of mothers and infants by the Health Visitor, beginning shortly after the birth of the infant and continued at intervals throughout the "pre-school" period.
- (c) The provision of Maternity and Child Welfare Centres.
- (d) Adoption of scheme under The Milk (Mothers and Children) Orders, 1919 and 1920.

It has not been found possible to institute certain other necessary measures, such as—

- (a) The provision of beds at a hospital or home for lying-in women.
- (b) Dental treatment for expectant and nursing mothers.

ANTE-NATAL WORK. It will be understood that in the Borough of Chelmsford, where the ground is well covered by Medical Practitioners and Midwives, there is little need for this work by the public health department. In a few cases advice has been given to expectant mothers at the Infant Welfare Centres by the Medical Officer. These have usually been cases where the mother had come to the Centre for advice about her infant rather than about her own condition.

The Health Visitor has paid 65 visits to the homes of expectant mothers. In many of these cases the object of the visit was to enquire into financial circumstances in connection with applications for milk at reduced price. It is not necessary for the Health Visitor to pay many ante-natal visits in Chelmsford, owing to the excellent way in which this work is performed by the Midwives.

HOME VISITS BY HEALTH VISITOR. On April 23rd, 1920, Mrs. Langford commenced her duties as Health Visitor.

Previously to this date the duties of Health Visitor and School Nurse had been combined in one appointment, but, owing to the growth of work in connection with the Maternity and Child Welfare Scheme, it became necessary to appoint a whole-time officer.

In addition to three years' training as a nurse, Mrs. Langford possesses the Central Midwives' Board certificate and some previous experience of public health work. Since her appointment on April 23rd she has paid the following visits during the year :—

	First visits.	Subsequent visits.	Total.
Visits to expectant mothers ...	30	35	65
„ „ infants under 1 year ...	430	1525	1955
„ „ children 1-5 years ...	—	417	417
	<hr/> 460	<hr/> 1977	<hr/> 2437

In all 2,437 visits were paid.

The first visit follows notification of birth, and is with the object of advising the mother on infant care, and also about her own health.

Later visits are paid, varying in number and frequency according to the requirements of each case.

In nearly all cases the visits of the Health Visitor are welcomed by the mothers, who are glad to avail themselves of her friendly advice.

MATERNITY AND CHILD WELFARE CENTRES. A Centre at the Friends' Meeting House was the first to be opened. Owing to the large attendance at this Centre it was found necessary to open a second Centre at the Orchard Street Hall, Moulsham, on July 22nd.

Since the opening of these two Centres the attendance of mothers seeking advice about their infants has been well maintained throughout the year. Altogether 1,£11 attendances have been made in respect of over 300 infants and children.

Children up to the age of 5 years are admitted to the Centres. Any over this age come under the scheme for the medical inspection of school children.

The infants are first weighed, and then, if necessary, inspected by the Medical Officer. Advice is chiefly given on the subject of infant feeding and minor ailments.

The mother of any infant suffering from acute illness of any kind is urged to seek medical advice at once from her usual medical attendant.

Valuable assistance is rendered at the Centres by voluntary workers, who undertake the marking of the attendance register, weighing the infants and the refreshment of mothers with a cup of tea. In addition, their presence encourages the mothers in their attendance at the Centre, and in general makes the Centre more attractive socially. The assistance of the Midwives of the town at the Centres has been particularly valuable. They have done most of the weighing of infants and have co-operated most heartily in the work.

Another useful feature of the work is the making of infant garments to be sold at the Centres at a price a little over the cost price of the wool used. Thanks are due to the teachers of the various schools in the town who have supervised the making of garments by school children for sale at the Centres. In addition, some of the older girls have attended at the Centre in order to observe points in the care of infants.

At the Centre held at the Friends' Meeting House a lady has attended to instruct the mothers in cutting out infant garments. This assistance has been much appreciated by the mothers.

With regard to the advice given to mothers on the subject of infant feeding, great stress has been laid on the importance of breast feeding.

The abandonment of the practice of breast feeding is only advised in cases where the mother is suffering from tuberculosis or epilepsy, or on other urgent medical grounds affecting the mother's health.

In cases where the supply of breast milk is failing, supplementary feeding is advised, but usually as a *temporary* measure, in the hope that the mother will eventually be able to resume breast-feeding entirely.

In cases where breast-feeding proved impossible, it was considered best in the majority of cases to advise feeding by boiled milk, suitably diluted in each case. In some cases citrated milk was advised. Dried milk was also advised in suitable cases.

The use of condensed milk and patent foods was generally discouraged.

The following table summarises the results of the enquiries made by the Health Visitor at the homes of the mothers and infants:—

1920. Month.	MOTHER.							INFANT.			
	WORK.		BAD HEALTH as regards			Attendance at Child Birth.		Feeding at 1st visit.			No cot.
	Domestic.	Other.	Teeth.	Constipation.	Poor Digestion.	Doctor.	Midwife.	Breast.	Artificial.	Mixed.	
January	32	1	15	3	4	10	29	26	2	3	12
February	37	2	15	15	11	14	32	30	5	5	18
March	36	2	14	14	9	18	29	37	4	1	20
April	27	2	13	11	6	11	21	25	1	3	14
May	22	—	8	8	7	13	19	21	2	3	15
June	23	—	5	6	10	13	18	19	3	6	10
July	26	1	11	10	8	11	21	20	1	8	20
August	30	3	9	11	8	17	29	29	2	5	25
September	24	1	10	5	6	11	15	20	3	4	14
October	28	2	7	8	10	14	17	21	3	2	16
November	22	—	6	6	5	14	16	17	2	2	15
December	23	—	6	11	6	16	13	20	2	3	11
TOTALS	331	14	109	108	91	159	258	285	30	46	190

The following facts were elicited, as shown in the table:—

MOTHER. *Work during pregnancy.* It was found that only 14 mothers remained at work throughout the whole time of their pregnancy. These were occupied as follows:—Charing 4, laundry work 3, shop assistant 1, factory hand 1, other occupations 5.

Bad health. It was found that 109 mothers (25 per cent.) suffered from carious teeth to a serious extent. In 108 cases there was considerable inconvenience from constipation, and 91 mothers suffered from gastro-intestinal disturbances.

Attendance at Child Birth. The investigation showed that in 159 out of 417 cases (or 37 per cent.) a medical practitioner was in attendance at the confinement. The great majority of the cases (63 per cent.) were attended by a midwife without medical assistance.

INFANT.	<i>Feeding.</i>	285 cases (79 per cent.) were found to be breast fed.
	30 „ (8 „) „ „	artificially fed.
	46 „ (13 „) „ „	cases of “mixed” feeding.

These figures refer only to the first 4 weeks of life. It is satisfactory to find that nearly 80 per cent. of infants were fed entirely on the breast at this period, but if figures were available for later periods they would be less satisfactory, as they would indicate a great falling off in the practice of breast feeding at this time.

No cot. In large number of cases (190, or about 45 per cent.) no cot was provided for the infant. This is an unsatisfactory state of affairs, which is largely the outcome of ignorance, as many mothers are under the impression that it is necessary for the infant to sleep in its mother's bed in order to keep it warm. By this treatment the infant is exposed to the danger of over-lying. It will not get sufficient air if it escapes this danger, and in addition the practice of giving night feeds is encouraged by this method.

THE MILK (MOTHERS AND CHILDREN) ORDER. The Maternity and Child Welfare Committee adopted a scheme under the Order of 1920.

Under this Order Local Authorities were empowered to supply milk free or at less than cost price (to quote the text of the Order) "not merely in necessitous cases, but also where such a supply was necessary because of the retail price in any area."

It was found sufficient to supply milk to cases which were considered necessitous, according to the scale which was sanctioned by the Committee. This scale was several times reduced, and finally abandoned, each case then being treated on its own merits. Throughout the year 155 families were relieved, 30 cases being supplied at half-price, the others free. In 65 cases the application was not granted.

At the beginning of the year 71 families were being relieved, the total daily quantity supplied being 150 pints. In October, 78 pints were being supplied in respect of 56 families. Latter this was reduced to 34 pints distributed among 32 families.

Sanitary Administration.

Full particulars of Staff and also of the Isolation Hospital were given in last year's Report.

BACTERIOLOGICAL EXAMINATIONS. An arrangement has been made by the County Council under which certain pathological and bacteriological materials are examined free of charge. Any practitioner in the County may send swabs or other material to the Laboratory. The results are notified to him, and also to the Medical Officer of Health of the district in which the case resides. Formerly the Borough of Chelmsford had an arrangement with the Clinical Research Association for the examination of specimens, but this has now been cancelled.

Under the new scheme Dr. John F. Beale has been appointed County Bacteriologist. Practitioners requiring outfits should write to him at the Essex Public Health Laboratory, 91, Queen Victoria Street, London, E.C. 4.

The following is a brief list of examinations included in the scheme:—

- Sputum, for T.B., B. Influenzal, etc.
- Blood, for Anthrax, Malaria, Typhoid, etc.
- Pus, for Anthrax, T.B., etc.
- Urine, for T.B., B. Coli, etc.
- Swabs, for Diphtheria, Ophthalmia, Cerebro-Spinal Fever.
- Hair, for Ringworm Spores,
- Fæces, for T.B., B. Typhosus, Dysentery, Worms, etc.
- Milk, for T.B., Diphtheria, Manurial Contamination, etc.
- Ice Cream and Shell Fish.
- Food, for various poisonings, and bacterial contamination.

Examinations such as those specified above are free, but any work undertaken outside this scheme has to be paid for by the Medical Practitioner or Local Authority sending the specimens.

LOCAL ACTS, ADOPTIVE ACTS and BYE-LAWS in force in the Borough of Chelmsford. See list in last year's Report.

Housing.

GENERAL HOUSING CONDITIONS. The number of dwelling-houses in the Borough is approximately 4,800. Of these about 3,800 may be considered working-class houses, including in this category houses of rent varying from 3s. 0d. to 10s. 0d. per week.

The population is estimated by the Registrar-General at 21,666.

Very little has been done during 1920 to add to the housing accommodation of the Borough.

Only 37 new houses were built during the year, and of these 24 were Corporation houses on the Boarded Barns Estate. As yet, private enterprise has been unable to assert itself as a serious factor in building new houses.

OVERCROWDING remains much the same as during 1919. The conditions caused by overcrowding in this Borough are undoubtedly serious. It is fortunate that no epidemic of infectious disease has occurred during the year, as the general prevalence of overcrowding would have favoured the spread of disease.

As it is, the general health of many of the inhabitants of the Borough is impaired by the conditions which exist, particularly in the case of women and children.

FITNESS OF HOUSES. As mentioned in last year's Report, there is a large number of unfit houses in the Borough.

The numbers given last year were 120 houses calling for early demolition, together with a further number of about 300, which, if kept in a state of good repair, may be considered habitable during the present time of acute shortage of houses.

The first class, numbering 120, is the type of house which is not worthy of any great expenditure of money in alterations or repairs, beyond those which are necessary to keep the structure upstanding and to provide a dry shelter for the inhabitants. Steps should be taken for their demolition as soon as a sufficient number of houses can be built to provide for the surplus population now in lodgings and to replace these unsatisfactory dwellings.

UNHEALTHY AREAS. As stated previously, there are no extensive areas of this type in Chelmsford, but certain small areas exist which require demolition.

No steps have been taken during the year to obtain Closing Orders under the Housing and Town Planning Act. Such action would only result in an increase of overcrowding, and it was considered that an insanitary house is better than none at all.

HOUSING NEEDS OF THE DISTRICT. The position is much the same this year as in 1919. At the present time there is a "waiting list" of about 600 applicants for new houses under the Corporation Scheme. It remains to be seen whether unemployment will continue, and, if it does, what effect it will have upon the number of persons living in the Borough who require houses.

It is not unlikely that bad trade may cause a considerable migration of families from Chelmsford to other districts.

MUNICIPAL HOUSING. Chelmsford is fortunate in possessing a Housing Scheme of 144 houses, completed just previous to the outbreak of the War, and situated in Rainsford Lane. These are useful, compact working-class dwellings, letting at rents varying from 4/3 to 6/9 per week.

In addition, the Boarded Barns Farm Estate was purchased in 1919 for housing purposes. It contains over 118 acres, and is intended for the erection of about 1,000 Workmen's Dwellings. The average number of houses to the acre will be eight.

Some progress has been made with this scheme during the last year. At the end of the year 1920 the position was as follows :—

Houses contracted for	...	..	...	280
Houses commenced and in progress	...	...	...	44
Houses ready for roofing and completion shortly	...	...	...	26
Houses completed	...	...	...	22

The scheme has been much hindered by the difficulties of obtaining building materials.

TABLE I.
BOROUGH OF CHELMSFORD.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1920 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age		At all ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1910	17,800	...	338	18.98	202	12.47	34	...	17	50.29	168	9.43
1911	18,008	...	370	20.94	257	14.27	41	12	38	102.7	216	12.00
1912	18,307	...	360	19.67	223	12.13	46	9	25	69.4	177	9.66
1913	18,500	...	397	21.45	237	12.80	31	10	23	57.94	206	11.13
1914	18,800	...	410	21.71	284	15.32	73	11	36	87.8	222	13.7
1915	19,054	...	416	21.84	340	17.89	75	11	36	86.54	276	14.53
1916	No records	...	...	...	...	...	...	...	...	...	...	...
1917	No records	...	...	...	239	12.4	...	...	...	70.5	...	...
1918	19,404	...	368	16.9	251	11.9	49	16	...	56.8	218	10.4
1919	20,836	...	334	15.3	...	...	...	...	19	...	...	...
1920	21,666	...	451	20.8	235	10.8	62	20	25	55.4	193	8.3
Area of District in acres (land and inland water), 3,015.		Total population at all ages, 18,008										
		Number of Inhabited Houses, 3,974										
		{ At Census, 1911.										

TABLE II.

BOROUGH OF CHELMSFORD.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1920.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								Total Cases notified in each Locality; (e.g.), Parish or Ward of the District.				TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years.							1. North Ward.	2. South Ward.	3. Springfield.		
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over.					
Small-Pox ...	23	...	5	14	3	1	...	...	4	18	1	23
Diphtheria (including Membranous Croup) ...	1	...	...	...	...	1	...	...	...	1	...	...
Erysipelas ...	28	...	6	12	8	2	...	...	12	8	8	28
Scarlet Fever ...	1	...	...	...	1	...	...	...	...	1	...	...
Encephalitis Lethargica ...	26	1	5	3	3	9	2	3	6	19	2	...	
Pneumonia ...	8	...	...	...	...	5	...	...	4	2	...	...
Malaria ...	1	1	...	...	3	...	...	...	...	1	...	...
Ophthalmia Neonatorum ...	33	...	...	1	11	15	5	1	13	12	8	...
Pulmonary Tuberculosis ...	5	...	...	...	2	3	...	...	2	2	1	...
Other forms of Tuberculosis ...	2	...	...	...	2	...	...	...	1	1	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	128	2	16	30	33	36	7	4	42	65	21	51	

Isolation Hospitals :—Baddow Road (Chelmsford) and Galleywood.

TABLE III.

DEATHS REGISTERED DURING THE CALENDAR YEAR 1920. CLASSIFIED BY AGE AND CAUSE.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF RESIDENTS WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENT" OR "NON- RESIDENTS IN INSTITUTIONS IN THE DISTRICT.
	All ages.	Under 1.	1 and 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards.	
All Causes	193	32	5	2	6	4	19	44	81	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...
Measles	2	...	1	...	...	...	1	...	...	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...
Whooping Cough	1	...	1	...	1	...	...	...	...	1
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	1
Influenza	...	...	...	...	...	...	...	...	...	...
Erysipelas	1	...	...	...	...	...	...	...	1	1
Phthisis (Pulmonary Tuberculosis)	7	...	1	...	2	...	1	4	2	2
Tuberculosis Meningitis	3	...	...	...	...	...	1	1	...	1
Other Tuberculous Diseases...	2	...	...	...	...	...	1	1	...	5
Cancer, Malignant Disease...	26	...	...	...	1	...	3	14	9	13
Rheumatic Fever	1	...	...	...	...	...	...	...	...	1
Meningitis	1	...	...	...	...	...	1	...	...	...
Organic Heart Disease	19	...	...	...	...	...	1	8	10	9
Bronchitis	16	3	...	...	...	...	1	1	12	16
Pneumonia (all forms)	14	4	2	...	...	1	2	1	1	4
Other diseases of Respiratory organs (Pleurisy)	1	...	...	...	...	...	1	...	...	...
Diarrhoea and Enteritis	...	...	...	1	1	...	1	...	1	3
Appendicitis and Typhlitis...	3	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	1	...	...	...	...	...	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	...	3	2
Nephritis and Bright's Disease	5	...	...	1	1	...	1	...	...	3
Puerperal Fever	1	...	...	...	...	...	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition	1	...	...	...	...	1	...	...	...	1
Congenital Debility and Malformation, including Premature Birth	16	16	...	...	...	...	1	2	2	1
Violent Deaths (excluding Suicide)	5	...	...	...	...	...	...	9	...	...
Suicide	...	...	...	...	...	2	5	1	40	41
Other Defined Diseases	65	9	...	...	...	...	...	...	...	...
Diseases ill-defined or unknown	1	...	...	...	...	...	...	...	...	...
TOTALS	193	32	5	2	6	4	19	44	81	107

TABLE IV.

BOROUGH OF CHELMSFORD—INFANT MORTALITY DURING THE YEAR 1920.

Nett Deaths from stated causes at various Ages under 1 Year of age.

Cause of Death.	Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under One Year.
All Causes { Certified ... Uncertified ...	5 ...	8 ...	1 ...	3 ...	17 ...	3 ...	3 ...	2 ...	... ...	25 ...
Measles ..	...	...	...	...	...	...	...	...	...	...
Whooping Cough ..	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis ..	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculous ..	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases ..	...	...	...	...	...	...	...	...	...	...
Meningitis not Tuberculous ..	...	...	...	...	...	...	...	...	...	...
Convulsions ..	1	1	...	...	2	...	...	...	...	2
Laryngitis ..	...	...	...	...	...	...	...	...	...	...
Bronchitis ..	...	...	...	1	1	...	1	1	...	3
Pneumonia (all forms) ..	...	1	...	...	1	...	1	...	...	3
Diarrhoea ..	...	...	...	...	...	...	...	...	...	...
Enteritis ..	...	...	...	...	...	...	...	...	...	...
Gastritis ..	...	...	...	...	...	...	...	...	...	...
Rickets... ..	...	...	...	...	...	...	...	...	...	...
Injury at Birth ..	...	...	...	...	...	...	...	...	...	...
Congenital Malformation ..	...	...	...	...	...	...	...	...	...	...
Premature Birth... ..	2	3	1	1	7	1	...	...	...	8
Atrophy, Debility and Marasmus...	1	2	...	1	4	2	...	...	...	6
Other causes ..	1	1	...	...	2	...	1	...	...	3
TOTALS ..	5	8	1	3	17	3	3	2	...	25

Nett Births in { Legitimate, 432.
the Year 1920. { Illegitimate, 19.

Nett Deaths in { Legitimate, 25.
the Year 1920. { Illegitimate, 0.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1920 FOR THE BOROUGH OF CHELMSFORD.

On the administration of the Factory and Workshop Act, in connection with

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions
Factories ... (Including Factory Laundries) ...	21	—	—
Workshops ... (Including Workshop Laundries) ...	151	14	—
Workplaces	—	—	—
Total. . .	172	14	—

2 —Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts —</i>				
Want of cleanliness ...	12	12	—	Nil
Want of ventilation ..	—	—	—	Nil
Overcrowding ...	—	—	—	Nil
Want of drainage of floors ...	—	—	—	Nil
Other nuisances ...	14	14	—	Nil
Sanitary accommodation {insufficient ..	1	1	—	Nil
{unsuitable or defective	Nil	Nil	—	Nil
{not separate for sexes	—	—	—	Nil
<i>Offences under the Factory & Workshop Act.</i>				
Illegal occupation of underground bake-house ...	—	—	—	Nil
Breach of special sanitary requirements for bakehouses ...	—	—	—	Nil
Other Offences . . .	—	—	—	Nil
Total... ..	27	27	—	Nil

4. REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)					Number. (2)
Important classes of workshops, such as workshop bake- houses, may be enu- merated here.	Bakehouses	...	...	...	20
	Dressmaking and Millinery	...	...	...	29
	Builders, Plumbers, &c.	...	...	...	13
	Cycles, Motor Repairs, &c.	...	...	...	11
	Other	...	...	...	37
Total number of Workshops on Register					110

5.—OTHER MATTERS.

Class. (1)	Number (2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of Factory and Workshop Act, 1901 (s. 133)	Nil
Action taken in matters referred by H.M. Inspector as remediable under Public Health Acts, but not under the Factory and Work- shop Act (s. 5, 1901)	4
	4
Others	Nil
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	Nil
In use at the end of the year	1

Report of the Veterinary Inspector, 1920.

CHELMSFORD.

TO THE MAYOR, ALDERMEN AND COUNCILLORS OF THE
BOROUGH OF CHELMFORD.

GENTLEMEN,

I have much pleasure in reporting that nothing of unusual nature has arisen in connection with my duties as Veterinary Inspector to the Borough during the year.

COWS AND COWSHEDS. All cows and cowsheds are inspected and examined at least once in each two months, and samples of milk have been taken from cows and examined whenever considered advisable.

The number of cowsheds in the Borough is	...	9
The number of cows in the Borough is approximately	250	
The number of cows excluded from cowsheds in the Borough during the year was	... ..	2
The number of samples of milk tested during the year was	... ..	61
The number of cows tested with the tuberculin test during the year was	... ..	0
The number of visits paid to cowsheds during the year was	... ..	73

The number of cows in the Borough is less than it has been for some time, Mr. W. McMorland having given up Waterhouse Farm where he kept 50 cows. This has been taken over by Mr. J. Norton, who has only 18.

SLAUGHTER HOUSES. The number of animals slaughtered in the Borough for human food during the year 1920 is approximately—

Beast	...	...	...	...	1998
Sheep	...	...	...	...	3832
Calves	...	...	...	...	328
Pigs	...	...	...	...	2193

About half of these were slaughtered at Wright's slaughterhouse in Springfield Road.

All the Slaughterhouses are in the same hands as last year, except the Government Slaughterhouses—Lovedays, Reynolds. Those are now the property of Mr. H. Wright, but all the killing is done at the Springfield Road Premises.

The following carcasses have been condemned :—

Feb. 16th	...	1 Carcase Beef, Creasy's.
July 20th	...	1 „ „ Banham's.
Nov. 17th	...	92 lbs. Pork, Wilson's.

Wright's Slaughterhouse.

1920.

Feb. 3rd	...	Carcase of Beef.
„ 6th	...	Carcases of 2 Sheep.
„ 17th	...	2 Forequarters of Beef.
„ 26th	...	Carcase of Beef.
Mar. 1st	...	„ „
„ 13th	...	„ „
„ 18th	...	Carcase of a Sheep.
Apr. 20th	...	„ Beef.
„ 28th	...	„ „ and 4 Livers.
May 13th	...	Carcase of Beef.
„	...	„ a Sheep.
„	...	1 Bullock's Head, 1 Liver and 88 lbs. of Beef.
Oct. 27th	...	Carcase of a Sheep.
Nov. 24th	...	Head and Tongue.

Other foodstuffs condemned.

Jan. 30th	...	6 lbs. Corned Beef.
Mar. 17th	...	18 „ „
June 22nd	...	7½ lbs. Bacon.
„	...	12 lbs. Corned Beef.
Aug. 27th	...	16 lbs. Ham.
„	...	15 lbs. Bacon.
Oct. 13th	...	60 Rabbits.
„ 25th	...	12 lbs. Corned Beef.

Wright's slaughterhouse has been visited every day since it was taken over ; all the others at very frequent intervals. They are, on the whole, well kept, but of course require constant supervision.

HORSE FLESH. A very large quantity is sent from this town to Rotterdam.

Palmer's slaughterhouse is visited every Sunday and Tuesday night to inspect the carcasses before they are put on rail. Six of these have been condemned.

MARKET. The Corporation Market has been regularly attended on each market and fair day, and all animals deposited or exposed for sale have been examined.

The following is a list of all the animals removed from the market during the last year :-

Animals sent out of Market.

1920.

May 14th	...	Black Cow	very emaciated.
July. 7th	...	Red Cow	„
Sept. 3rd	...	Black Cow	„ and suspected to be tuberculous.
„ 17th	..	Dun Cow	„ „ „

It is much to be regretted that the Tuberculosis Order of 1914 was suspended for the duration of the war, as without it one cannot deal with these animals after they are sent out of the Borough. I am glad to hear that it is likely to be put into force at an early date.

The class of animals sent to this market is very markedly superior to that of previous years.

CONTAGIOUS DISEASES. The following outbreaks of Contagious Disease have occurred :—

Anthrax.

25th January —

Carcass of a Cow at Palmer's slaughterhouse. This animal was found dead at Mr. Flemmings, Barns Farm, Springfield, supposed to have been choked, sent to Palmers. The carcass was destroyed by fire. All Flemming's cows were kept under observation for three weeks.

6th October—

Carcass of a bullock at Wright's slaughterhouse. This animal was bought at Ipswich Market, was dressed at the slaughterhouse and found to be affected with this disease. Unfortunately the chief slaughterman "Coe" inoculated himself on the eyebrow. He is still under treatment at the London Hospital.

The carcass and all materials which had been in contact with the blood of this animal were destroyed by fire.

Parasitic Mange :—

March 13th	...	Palmer, Moulsham.
July 31st	...	W. MacMorland, Waterhouse.

Glanders :—

24th October—

Carcase of a horse at Palmer's slaughterhouse was found to be affected with Glanders.

This was one of two purchased from Patrick Green, Ingatestone.

The other was tested with Mallein, re-acted, and was destroyed.

25th October—

Carcase of a horse at Palmer's slaughterhouse, purchased at Brentwood (reported to the Police at Brentwood), carcase destroyed.

Patrick Green's horses were tested but none re-acted.

10th January—

All the horses at Palmer's were re-tested with a negative result.

16th January—

Those at Green's with the result that one re-acted. This has been destroyed.

Post-mortem Examination in every case confirmed the result of the test.

Sheep Scab :—

6th December—

An outbreak of this disease occurred at the Golf Links.

These sheep are still under observation.

CORPORATION HORSES. With the exception of temporary disablement, the condition of the horses has been satisfactory.

Three very old horses from the Corporation stables were sold.

Two new ones bought.

I have the honour to be, Sir,

Your obedient Servant,

W. S. MULVEY, T.D., F.R.C.V.S.

Report of the Inspector of Nuisances.

PUBLIC HEALTH DEPARTMENT,

DUKE STREET, CHELMSFORD.

February, 1921.

TO THE MAYOR, ALDERMEN AND COUNCILLORS OF THE
BOROUGH OF CHELMSFORD.

GENTLEMEN,

I have the honour of presenting the following report of work done during the year ended December 31st, 1920, being my Ninth Annual Report.

The following is a summary of Sanitary work carried out during the year as a result of Notices served or recommendations made:—

Dilapidated water closets rebuilt	2
Additional water closets provided	3
Flushing apparatus and supply of water provided to water closets previously flushed by hand	2
Water closets provided with proper waste, preventing cisterns in place of large tanks with spindle valves	6
Foul midden privies converted to pail closets	1
„ „ to water closets	3
Pail closets converted to water closets	2
Flushing apparatus and fittings of water closets repaired or new flushing cisterns provided	198
Proper pedestal basins provided to water closets previously fitted with filthy and defective long hopper basins	211
Defective water closets repaired, cleansed, &c.	179
New branch drains laid	20
New drainage provided and connected to sewer (previously drained to cesspool)	2
Glazed gully traps fixed	65
Defective drains relaid, repaired, ventilated or intercepted	95
„ sink and lavatory waste pipes properly disconnected, repaired or renewed	88
Inspection chambers provided to drains	4
Obstructed drains, water closets, &c. unstopped	47
Urinals improved	6
Miscellaneous	83

Refuse Receptacles.

Foul ashpits abolished... ..	6
Galvanized iron sanitary dustbins provided in place of foul ashpits, or where previous bins were dilapidated	234

Dwelling Houses.

Houses or parts thereof cleansed, Sec. 46, P.H.A. 1875	...	...	14
Damp conditions prevented, damp courses inserted, walls rendered with impervious material, soil removed from wall, &c.	...	...	118
Overcrowding abated	...	...	3
Floors relaid	...	...	49
Floors and stairs repaired	...	...	80
Roofs and ceilings	..	...	93
Walls, chimneys, plastering, doors, windows, stoves and coppers repaired, &c.	...	...	203
Troughing and downpipes provided, repaired, or cleared from obstruction or properly disconnected...	...	...	201
Sanitary sinks and water supplies provided in houses where no sink was previously provided and water was outside houses	...	...	4
Sanitary sinks provided in place of defective stove and other sinks	...	...	34
Additional light provided in houses	...	...	5
Efficient ventilation provided, windows made to open, &c.	...	...	99
Yard paving laid, relaid, or repaired	...	...	320
Premises closed as unfit for habitation	...	...	3
Miscellaneous	..	...	13

Water Supply.

Houses provided with supplies of water directly from the main instead of from storage tanks	...	...	...	317
Premises provided with an efficient supply of water where previous supply was insufficient	...	...	...	20
Borough water laid on to houses previously supplied from shallow wells	...	...	...	8
Borough water laid on to premises where there was no previous supply of water	...	...	...	1
Samples of water from shallow wells submitted for analysis	...	...	...	12
„ „ „ condemned as unfit for drinking or domestic purposes	...	...	...	10
Wells closed and Borough water laid on	..	...	...	2
Wells improved	...	...	...	1

Miscellaneous.

Dairies, cow sheds or milk shops cleansed or repaired after notice	...	...	2
Nuisances from keeping animals abated	...	...	16
Accumulations of manure and other refuse removed	...	...	21
Premises, &c. cleansed	...	...	10
Slaughterhouses limed after notice	...	...	2
Slaughterhouses repaired after notice	...	...	2

Drains removed from outside slaughterhouse, and proper blood pit provided	...	...	...	...	1
Walls of slaughterhouse properly coated and new floor laid	...	...	...	...	1
Wells in slaughterhouses closed	...	...	...	...	1

Drains, Waterclosets, &c.

Forty-seven drains have been cleared from obstruction, and 65 glazed gully traps have been fixed in place of defective or obsolete traps.

Two dilapidated wooden water closets have been re-built and 3 additional water closets provided where the accommodation was insufficient.

Only five instances have been found where water closets were handflushed and of these 3 were provided with proper flushing apparatus during the year; in one case town water was already laid on to the premises, but in the other two cases it only became possible to provide proper means of flushing when water was laid on from the town mains to the premises.

In the remaining 2 cases the owners are making arrangements to provide flushing apparatus, the town water being in use on the premises.

There have also been 6 cases in which proper water waste preventing cisterns have been provided in lieu of large tanks with spindal valves.

I am unaware of any other instances of "waterless" water closets, but some few closets are still flushed from large tanks instead of from water waste preventers.

Refuse Receptacles.

Six foul ashpits have been abolished, and 234 galvanized iron sanitary bins provided in place of the ashpits or where the previous bins were dilapidated.

The shortage of these bins during the war period has been to some extent, but not entirely overtaken.

Dwelling Houses.

I have included work done under these heading in the general summary: but I also insert the table required under the Housing and Town Planning Act, which is as follows:—

Number of dwelling houses inspected	...	..	70
" " considered to be so dangerous or injurious to health as to be unfit for human habitation	...	...	3
Number of representations made to the Local Authority with a view to the making of Closing Orders	...	...	Nil.

Number of Closing Orders made	...	..	...	Nil.
Number of houses the defects in which were remedied without the making of Closing Orders	...	...	...	1
Number of houses which after the making of Closing Orders were put in a fit state for human habitation			...	Nil.

This table shows that no Closing Order was made during 1920, but one house was closed under the Public Health Act, 1875, on representations being made as to its unsatisfactory state.

Instances occurred of a lock up shop and a motor house being used as dwellings, and both of these were vacated on representations being made to the occupiers.

In a further case premises erected for offices were used as a dwelling, but in this case the Council decided to take no further action.

Common Lodging Houses.

The common lodging houses, of which there are only 2 in the Borough, have been generally well conducted.

Slaughterhouses.

The number of slaughterhouses in the Borough is 8, and there is also 1 Knacker's yard.

The premises are generally fairly satisfactory, although some of them do not quite fulfil modern requirements.

In four cases the well water in use was sampled and in each case condemned, and at the end of the year one well had been closed (the town water being also previously provided, no other works were necessary) and arrangements were being made for the provision of the town supply in the other instances.

At the time of writing the town supply has been laid on in two other cases, and work is proceeding in the remaining case, so that all the slaughterhouses will now have the town supply. In one case the floor has been re-laid, proper drains and a bloodpit provided in the yard, yard laid in cement and walls properly rendered. These works constitute a very considerable improvement in the slaughterhouses of the Borough.

Bakehouses.

There is still one underground bakehouse in use; all have been fairly well kept, and limewashing and other matters have received due attention.

The Market.

So much attention has been given in the past to the diseased animals sent into the Market that it is pleasing to report that this year it has only been found necessary to send out 4 animals, viz. :—

May 14th	...	Black Cow,	very emaciated.	
July 9th	...	Red Cow,	do.	
Sept. 3rd	...	Black Cow,	do.	and suspected to be tuberculous.
„ 17th	...	Dun Cow,	do.	do.

This result is mainly due to the unremitting and expert attention given by your Veterinary Inspector, Major Mulvey, T.D., F.R.C.V.S., and is a tribute to the line of policy he has carried out.

Dairies, Cowsheds and Milkshops.

The number of Cowkeepers in the Borough is 8.

„ „ Purveyors of Milk „ is 12.

The Cowsheds and Dairies have been inspected from time to time, and any necessary action taken.

They are, however, generally kept in a satisfactory condition and little need for intervention has arisen.

Food Inspection.

The surrenders of unsound food during the year have been as follows :—

Jan. 30th	...	6 lbs. Corned Beef
Feb. 3rd	...	Carcase of Beef
„ 6th	...	Carcases of 2 Sheep
„ 16th	...	Carcase of Beef
„ 17th	...	2 Forequarters of Beef
„ 26th	...	Carcase of Beef
Mar. 1st	...	„ „
„ 13th	...	„ „
„ 17th	...	18 lbs. of Corned Beef
„ 18th	...	Carcase of a Sheep
Apl. 20th	...	„ Beef
„ 28th	...	„ „ and 4 Livers
May 13th	...	„ Beef
„ „	...	„ a Sheep
„ „	...	1 Bullock's Head, 1 Liver, 88 lbs. of Beef
June 22nd	...	7½ lbs. of Bacon
„ „	...	12 lbs. of Corned Beef
„ „	...	22 tins of Condensed Milk
July 20th	...	Carcase of Beef

Aug. 20th	...	2 boxes of Tomatoes
„ 27th	...	16 lbs. of Ham
„ „	...	15 lbs. of Bacon
Oct. 13th	...	60 Rabbits
„ 25th	...	12 lbs. of Corned Beef
„ 27th	...	Carcase of a Sheep
Nov. 17th	...	92 lbs. of Pork
„ 24th	...	Head and Tongue

Offensive Trades.

There is one fat extractor and one tan yard.

Complaint was received on one occasion of smell from the fat extractor's works and your Medical Officer of Health and myself at once visited the works but we did not consider further intervention necessary.

Elementary Schools.

The sanitary conveniences of the various Elementary Schools have been inspected and reported upon each month.

Disinfection, etc.

Fifty-one patients were removed to the joint Isolation Hospital, viz. : Scarlet Fever, 28 ; Diphtheria, 23.

The number of disinfections was as follows : Scarlet Fever, 28 ; Diphtheria, 23 ; Consumption, 6 ; Cancer, 3 ; Pneumonia, 2 ; Human Anthrax, 1 ; Other, 3.

The necessary bedding and clothing were removed to the Joint Hospital Board's disinfecting station for disinfection.

I have the honour to be, Gentlemen,

Your obedient servant,

WALTER BROWN, Assoc. Roy. San. Inst.,

Inspector of Nuisances.

